BLM

Sierra Front Field Office, Nevada

Pine Nut
Land Health Project

draft Finding of No Significant Impact

DOI-BLM-NV-C020-2013-0017-EA

October 2013

Background

The Bureau of Land Management (BLM) Carson City District, Sierra Front Field Office is proposing a 24,564 acre land health project in the Pine Nut Mountains, Douglas, Lyon and Carson City Counties, Nevada. The Pine Nut Land Health Project (Project), would be implemented over a 10 to 15 year period to protect, maintain and restore ecologically diverse, properly functioning and resilient native plant communities.

Vegetation management treatments are needed in the Pine Nut Mountains to restore ecological balance, diversity and resilience to plant communities and reduce hazardous fuels to protect people, property, infrastructure and resources from severe wildfire. Wildlife habitat quality is diminishing due to woodland expansion and is threatened by heavy accumulations of fuels that greatly increase the potential for large, high-intensity wildfires. Historically, wildfires maintained a healthy balance of vegetation types and prevented fuels from accumulating; however, the existing patterns of vegetation are not conducive to favorable effects from fire without the intervention of proposed treatments. Hazardous fuels currently need to be managed to protect vegetation from uncharacteristic, severe wildfire.

Altered disturbance regimes and climate change have resulted in major changes in plant community compositions. Since the 1860's, many bunchgrass and sagebrush-bunchgrass (*Artemesia sp.-Poaceae sp.*) communities, which dominated the Intermountain West, have shifted to pinyon-juniper woodland (*Pinus monophylla-Juniperus osteosperma*) or introduced annual dominated communities. Studies show that the expansion of pinyon-juniper has more than tripled in the areas dominated by pinyon-juniper woodlands within the last 150 years. Although pinyon- juniper woodlands have increased dramatically in the last 150 years, they currently occupy far less than they are capable of under current climatic conditions. The increasing dominance of pinyon-juniper within portions of the Pine Nut Mountains is apparent from aerial photography and presence of young pinyon-juniper expanding into sagebrush communities where soil type indicates no or very few trees should exist. Woodland expansion affects soils, vegetation structure and composition, water, nutrient and fire cycles, forage production, and plant and wildlife biodiversity.

Studies conclude that barring some major environmental change or management action, trees will continue to dominate most of the sites favorable to their expansion. This continued tree dominance could result in a stand replacement wildfire with catastrophic consequences because of continuous tree canopy. Studies show that in dense pinyon-juniper woodlands, the ability of the understory to respond after a fire is dramatically reduced and potentially opens the site to invasion by exotics. Any treatments or rehabilitation of these areas could be difficult and costly.

An increase in tree dominance results in a loss of understory vegetation, and fires in dense pinyon-juniper can be extremely difficult to control and very damaging to healthy woodlands, sagebrush, and herbaceous vegetation. Goals of pinyon-juniper management include an attempt to restore ecosystem function and a more balanced plant community that includes shrubs, grasses, and forbs, and to increase ecosystem resilience to disturbances. Mule deer (*Odocoileus hemionus*), pinyon jays (*Gymnorhinus cyanocephalus*), mountain chickadees (*Poecile gambeli*), and scrub jays (*Aphelocoma californica*) depend on woodland landscapes that have a more open

canopy and park-like structure with a robust understory of forbs, grasses, and shrubs. In highly dense pinyon-juniper stands, the understory is eliminated and is in decline.

The spread of pinyon-juniper may also be a contributing factor in decreasing water availability (both limiting streamflow and shallow groundwater). Riparian vegetation communities would respond to increase water availability by expanding their distribution and improved health. The health of riparian areas is important to maintaining quality wildlife habitat on the landscape. Riparian hardwoods such as aspens (*Populus tremuloides*) and cottonwoods (*P. balsamifera ssp. Trichocarpa*) are vulnerable to intense fire, although they can survive lower-intensity fires, and reducing heavy fuel loads in riparian areas can significantly lower the risk of wildfire. Management guidelines recommend removal of conifers within and adjacent to aspen and cottonwood stands. Control and/or reduction in the density and extent of pinyon-juniper in the watershed would benefit the riparian community. Healthy springs/wet meadows support abundant and diverse forbs and insect populations that Bi-State sage-grouse[1] (*Centrocercus urophasianus*) chicks are critically dependent on.

Determination

On the basis of the information contained in the *Pine Nut Land Health Project Draft Environmental Assessment* (EA) (DOI-BLM-NV-C020-2013-0017-EA), I have preliminarily determined that the Proposed Action does not constitute a federal action having a significant effect on the human environment. Therefore an environmental impact statement (EIS) would not be required.

This finding is based on my consideration of the Council on Environmental Quality (CEQ) criteria for significance (40 CFR 1508.27), both with regard to the *context* and *intensity* of the impacts described in the draft EA.

Context

The planning area for this Project is the Pine Nut Mountains, located in Douglas, Lyon and Carson City Counties, Nevada. The communities of Carson City, Minden, Gardnerville, Wellington, Smith and Dayton are spread around the edge of the range. The range, which runs north-south for 38 miles, includes approximately 400,000 acres of mixed ownership (public land, private land, Indian trust land[2]). The southern portion of the range includes the 13,395 acre Burbank Canyon Wilderness Study Area. The topography of the range varies from rolling hills, approximately 5,000 feet in elevation, to over 9,000 feet in elevation at the tops of the tallest peaks. Vegetation is typical of the western Great Basin and is dominated by a mix of grasses, sagebrush, rabbitbrush, bitterbrush (*Purshia tridentata*), and pinyon and juniper trees. Temperatures can exceed 100 degrees Fahrenheit at lower elevations during July and August and can drop below 10 degrees during December and January. Average annual precipitation is strongly influenced by elevation and varies from six to 16 inches.

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[1] In this document the terms "sage-grouse" and "Bi-State sage-grouse" are used synonymously. The U.S. Fish and Wildlife Service has determined that the Bi-State sage-grouse, known to occur in the Project area, is a distinct population segment (DPS) of the greater sage-grouse.

[2] Trust land refers to land held in trust by the United States for an Indian tribe or an individual tribal member. This means that the United States holds legal title to that land, while the tribe or individual tribal member holds beneficial title, which means that the tribe or tribal member has the right to use the property and derive benefits from it.

Intensity

1) Impacts that may be both beneficial and adverse.

During the implementation of the Proposed Action there would be short-term adverse effects. Pile burning would create an increase in particulates, and equipment and vehicles accessing the treatment units would temporarily increase emissions, a negligible effect on air quality. Removal of trees, whether for fuels reduction, removing encroaching pinyon-juniper trees in riparian areas, or to enhance sagebrush habitats, would in the short-term negligibly affect wildlife species that use the trees for perching, shade or nesting. Vehicles and equipment may inadvertently disturb or crush plants during implementation, a negligible effect. In the long-term, the Proposed Action would benefit those plant and animal species associated with sagebrush communities. Removal of trees in the wildland-urban interface would benefit the public lands and nearly private residents by reducing the likelihood a wide-spread, large-scale wildland fire.

2) The degree to which the proposed action affects public health or safety.

Implementation of the treatments in the Proposed Action may improve public and firefighter safety by reducing the likelihood of a large catastrophic wildland fire.

3) Unique characteristics of the geographic area such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas.

The Proposed Action would have no adverse effect on historic or cultural resources, no effect to prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas (such as Areas of Critical Environmental Concern).

4) The degree to which the effects on the quality of the human environment are likely to be highly controversial.

The effects of the vegetative treatments in the Proposed Action are well understood and are not highly controversial.

5) The degree to which the possible effects on the human environment are highly uncertain or involve unique or unknown risks.

There are no known effects of the Proposed Action which are considered uncertain or involve unique or unknown risks.

6) The degree to which the action may establish a precedent for future actions with significant effects or represents a decision in principle about a future consideration.

The Proposed Action does not establish a precedent for future actions with significant effects and does not represent a decision in principle about a future consideration. Any future actions within the Project or planning area, if they were to occur, would be subject to separate environmental analysis.

7) Whether the action is related to other actions with individually insignificant but cumulatively significant impacts.

No significant cumulative effects were identified in the draft EA. Any other actions proposed in the Allotment would be evaluated as to whether the actions effects added to the Proposed Action would cause cumulatively significant effects.

8) The degree to which the action may adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the NRHP or may cause loss of destruction of significant scientific, cultural, or historical resources.

Certain treatment methods such as hand cutting do not involve ground disturbance and therefore have a very low potential to adversely[3] affect historic properties. Other methods, such as those that involve mechanized equipment, have the potential to adversely affect historic properties. Due to the phased approach of this Project, anticipated to be implemented over a 10 to 15 year period, there is the potential for historic properties to be adversely affected by the treatments. To resolve potential adverse effects, the BLM is preparing a Programmatic Agreement (PA) in accordance with 36 CFR 800.14 (b). The PA would define the methods through which the BLM would identify historic properties and resolve adverse effects for each phase of the Project. Resolution of adverse effects is typically through site avoidance. Execution of the PA is required prior to the BLM issuing a decision on this Project.

9) The degree to which the action may adversely affect an endangered or threatened species or its habitat that has been determined to be critical under the ESA or 1973.

No federally listed species under the ESA, or its critical habitat for such species occurs within the Project area. On August 1, 2013 the U.S. Fish and Wildlife Service proposed to list as threatened the Webber's Ivesia and designate critical habitat. The BLM has not documented the occurrence of Webber's Ivesia in the Project area. As stated in Section 2.1.1.5, areas to be mechanically treated with high likelihood of species occurrence would be surveyed and treatment may be delayed or changed to hand thinning. These mitigation measures would avoid or minimize impacts to Webber's Ivesia, if present. The proposed critical habitat in Douglas County does not occur in the Project area.

10) Whether the action threatens a violation of federal, State, or local law or requirements imposed for the protection of the environment.

The Proposed Action is in conformance with the Carson City Field Office Consolidated Resource Management Plan (2001). Implementation of the Proposed Action would not violate or threaten to violate any federal, State, or local law or requirement imposed for the protection of the environment.

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Leon Thomas Date
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Sierra Front Field Office

[3] 36 CFR 800.5(a)(1) defines adverse as the "alternation to the characteristics of a historic property that qualify it for inclusion in the National Register of Historic Places in a manner that would diminish its integrity."